

Liquid Crystal Display Device and Light Emitting Structure With Photonic Band Gap Transparent Electrode Structures

Abstract

5 An LCD device for displaying an image includes pixel control electrodes
constructed as a transparent metal stack having a photonic band gap (PBG)
structure that transmits a visible range of wavelengths and suppresses a non-
visible range of wavelengths. A liquid crystal layer between the pixel control
electrodes controls the transmission of light in response to a voltage applied
across the pixel control electrodes. A light emitting structure (LES), such as a
10 light emitting diode (LED) or light emitting polymer (LEP) device includes a
cathode electrode, a substrate, an active layer for emitting visible light, and a
transparent anode electrode having a PBG structure.

A276-43.wpd